

REMARKS

Applicant has provided a revised claim set pursuant to the Examiner's rejections and requests reconsideration of the application of the present invention. In light of the provided revised claims and the enclosed remarks, Applicant believes the rejections made by the Examiner should be removed. Furthermore, Claim 10 has been cancelled therefore the Section 112 and 101 rejections made by the Examiner have been overcome.

I. Rejection of Claims 1 and 4-16 under 35 USC 103(a) as being unpatentable over Takaichi et al. in view of Wilen, Needleman et al, Theeuwes, and Buysch et al. and further in view of Gurol et al., and Galat.

Claims 1 and 4-16 stand rejected under 35 U.S.C. 103(a) as unpatentable over Takaichi et al. in view of Wilen, Needleman et al, Theeuwes, and Buysch et al., and further in view of Gurol et al., and Galat. In light of the cancellation of Claims 1 and 4-16, Applicant believes that the Examiner's rejections have been overcome. The provided revised claim set is drawn to the premix composition provided by the present invention. Applicant believes that the present invention is patentable and requests reconsideration.

According to the Examiner, the Takaichi et al. reference discloses a method of stabilizing pharmaceutical compositions by the use of calcium oxide and particulate silicon dioxide to control moisture and restrict the interaction of water with other components of the compositions. Furthermore, the amount of calcium oxide to be included in the composition is not to exceed 1.0% by weight. As suggested by the Examiner, the Takaichi reference does not teach a composition comprising magnesium sulfate, as a sole anhydrous compound, or in combination with calcium oxide. The purpose of the calcium oxide within the Takaichi reference is to serve as a moisture absorption medium.

Although the Takaichi reference recognizes the need for desiccants, it does not even suggests or provide motivation to combine calcium oxide with magnesium sulfate. Applicant fails to recognize where the underlying motivation to combine the cited references by the Examiner is exhibited. The Takaichi reference makes no suggestion that magnesium salts should be used in combination with calcium oxide. In addition, the present invention discloses a range of calcium oxide that is up to 10% by weight of the composition, and preferably from about 4-8% by weight of the composition. On the other hand, the Takaichi reference specifically teaches that the amount of calcium oxide to be included in the composition is not to exceed 1.0% by weight of the composition. In contrast, the preferred range of calcium oxide in the present invention is above 1%, more preferably 4-8% by weight of the composition. It is asserted by the Applicant that the Takaichi reference fails to meet the preferred calcium oxide element as relied upon by the Examiner and, if anything, teaches away from the use of calcium oxide as taught by the present invention. Applicant suggests that the Takaichi reference fails to suggest a motivation to using calcium oxide in the amounts provided by the present invention.

In addition, the revised claims of the present invention provide an acid salt which is included in the premix and is furthermore included in a substantially anhydrous form, as a calcium salt. The presence of such acid salt provides a useful way of adding a soluble and palatable calcium source. Furthermore, by providing the calcium source in a substantially anhydrous form the levels of calcium oxide/magnesium sulphate can be reduced, while good desiccation is still achieved. The increase level of soluble calcium is consistent with the nutritional aims of the present invention and ensures that the premix composition of the invention remains a free flowing desiccant powder.

Although, the Wilen reference discloses an effervescent tablet containing magnesium sulphate, the purpose of such sulphate is not identified. Moreover, there is no motivation within the Wilen reference to combine the elements provided within each of the cited references to address a particular problem.

The Wilen reference is concerned with effervescent tablets. As previously suggested by the Applicant, the Wilen reference in Example 2, provides a tablet containing magnesium sulphate and calcium gluconate. The calcium gluconate does not provide the desiccating effect as provided by the calcium oxide of the present invention. In contrast, the calcium oxide and magnesium sulfate combination of the present invention was specifically selected to provide not only a desiccating effect but also a nutritional supplement that works in combination to counter the individual effects that each salt can have on the intestinal track alone. Therefore, the combination of the magnesium sulfate and calcium oxide is key to the desired performance of the present invention. The Wilen reference provides no teaching as to why the specific components are used in combination and in the amounts indicated to provide the benefits of the present invention. Applicant asserts that even though calcium oxide and magnesium sulphate have been used in various effervescent formulas individually, it is the combination of the components in the desired amount that provide the overall present invention and serve as a basis for patentability.

The Needleman reference which is related to exothermic effervescent compositions for improved fragrance bears no resemblance to an edible or nutritionally based product, such as provided by the present invention. The fact that an exothermic agent can be selected from a group as listed in the Needleman reference, does not teach

the combination as suggested by the present invention. Although the Needleman reference mentions the problem of moisture in the product, the reference does not suggest a way to deal with such problem.

Similarly, Applicant suggests that the Theeuwes reference does not suggest a motivation to combine the reference with the others cited by the Examiner in order to provide a solution as exhibited by the present invention. In contrast, the Theeuwes reference is directed to an osmotic dispenser not a premix for a nutritional supplement.

Applicant further recognizes that the Buysch, Gurol and Galat references teach the desiccating properties of a range of compounds, as well as the counter effects of calcium and magnesium salts, but fails to see the motivation to combine the references to obtain the present invention. The Gurol and Galat references do not suggest that the selected salts, as provided by the present invention, achieve the purpose as claimed by the present invention. Furthermore, the Buysch reference does not teach the benefits of selecting particular calcium acid salts (as specifically provided in the present invention) over others, nor does it provide a motive to select such salts based on solubility, palatability or to provide re-mineralising effects in an end product.

Overall, the present invention recognizes a need for a premix composition that provides mineral supplementation for nutritional products. The premix composition not only provides mineralizing doses of calcium and magnesium but utilizes the combination of such minerals to avoid adverse effects of calcium alone. The present invention further provides the calcium and magnesium in forms which act as dessicants to make the manufacturing of a nutritional product cheaper and simpler. Through the use of the present invention, nutritional products are further provided in a soluble and palatable

form by providing a proportion of the calcium in an acid form. Therefore the present invention can be characterized as providing a premix which is flowable and contains a high concentration of calcium which provides re-mineralised amounts of calcium when added to a nutritional or pharmaceutical preparation. The premix does not compact in moisture and acts as a desiccant in a nutritional or pharmaceutical preparation. The premix is soluble and palatable which results in lessening the digestive problems associated with various nutritional or pharmaceutical compositions known in the art. Such overall benefits are exhibited by the present invention and support the Applicants assertion that the present invention satisfies a long felt and unresolved need within the industry.

In light of the above remarks, Applicant asserts that the rejections based on these references are rendered moot. Applicant believes that none of the cited references suggest or teach the benefits and effects as established above for the present invention. Therefore, one of ordinary skill in the art would not have been motivated to combine the teachings of the cited references, and in particular with respect to the desired combinations.

In light of the amendments provided and the above remarks, Applicant believes that the Examiner's rejections have been removed and respectfully request reconsideration of the rejection.

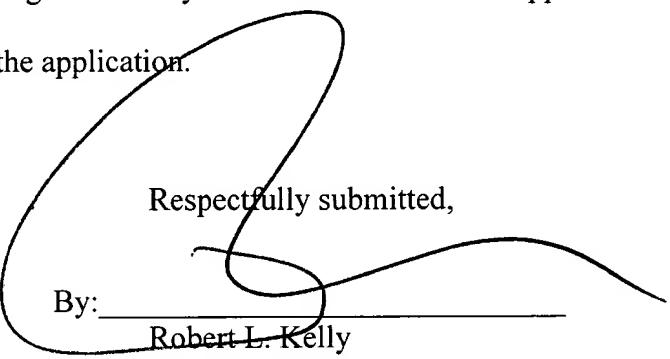
CONCLUSION

In view of the foregoing amendments and submissions, Applicant respectfully requests that the rejection of pending claims 1 and 4 - 16 be withdrawn and allowance of Claims 17-44 be issued. Applicant requests consideration of the provided claim set and further requests allowance in light of the provided remarks. If the Examiner should have any questions, please contact the undersigned for any further clarification. Applicant hereby requests further consideration of the application.

Date: December 23, 2003

Respectfully submitted,

By: _____


Robert L. Kelly

Reg. No. 31,843

Attorney for Applicant

DYKEMA GOSSETT PLLC

39577 Woodward Ave, Suite 300

Bloomfield Hills, MI 48304-2820

Phone: 248-203-0849

Fax: 248-203-0763